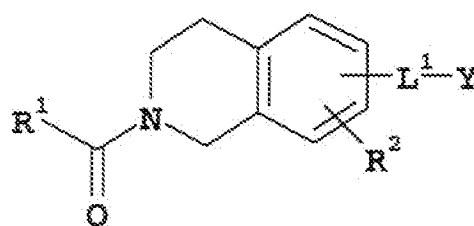


# CLAIMS

What is claimed is:

1. (currently amended) A compound of formula (I):-



(I)

wherein:-

R<sup>1</sup> represents optionally substituted aryl, optionally substituted heteroaryl, R<sup>3</sup>NH-Ar<sup>1</sup>-L<sup>2</sup>, or R<sup>3</sup>-NH-C(=O)-NH-Ar<sup>2</sup>-L<sup>2</sup>;

R<sup>2</sup> represents hydrogen, halogen, C<sub>1-4</sub>alkyl or C<sub>1-4</sub>alkoxy;

R<sup>3</sup> represents optionally substituted aryl or optionally substituted heteroaryl;

R<sup>4</sup> is alkyl, aryl, cycloalkyl, heteroaryl or heterocycloalkyl, or alkyl substituted by aryl, an acidic functional group, cycloalkyl, heteroaryl, heterocycloalkyl, -S(O)<sub>m</sub>R<sup>5</sup>, -C(=O)-NY<sup>3</sup>X<sup>4</sup>, or -NY<sup>3</sup>X<sup>4</sup>;

R<sup>5</sup> represents alkyl, alkenyl, alkynyl, aryl, arylalkyl, arylalkenyl, arylalkynyl, cycloalkyl, cycloalkylalkyl, cycloalkylalkenyl, cycloalkylalkynyl, cycloalkenyl, cycloalkenylalkyl, heteroaryl, heteroarylalkyl, heteroarylalkenyl, heteroarylalkynyl, heterocycloalkyl or heterocycloalkylalkyl;

R<sup>6</sup> is hydrogen, alkyl, aryl, arylalkyl, cycloalkyl, cycloalkylalkyl, heteroaryl, heteroarylalkyl, heterocycloalkyl or heterocycloalkylalkyl;

R<sup>7</sup> is hydrogen, R<sup>5</sup>, or alkyl substituted with alkoxy, cycloalkyl, hydroxy, mercapto, alkylthio or -NY<sup>3</sup>X<sup>4</sup>;

R<sup>8</sup> is hydrogen or C<sub>1-4</sub>alkyl;

R<sup>9</sup> and R<sup>11</sup> are each independently selected from hydrogen or a group consisting of amino acid side chains, an acidic functional group, R<sup>5</sup>, -C(=O)-R<sup>5</sup>, or -C(=O)-NY<sup>3</sup>X<sup>4</sup>, or alkyl substituted by an acidic

functional group or by  $R^5$ ,  $NY^3Y^4$ ,  $NH-C(=O)-R^5$ ,  $C(=O)-R^{12}-NH_2$ ,  $C(=O)-Ar^2-NH_2$ ,  
 $C(=O)-R^{12}-CO_2H$ , or  $C(=O)-NY^3Y^4$ ;

or  $R^7$  and  $R^9$  together with the atoms to which they attached form a 3- to 6-membered heterocycloalkyl ring;

$R^{10}$  represents  $C_{1-6}$ alkylene, optionally substituted by  $R^4$ ;

$R^{12}$  is an alkylene chain, an alkenylene chain, or an alkynylene chain;

$R^{13}$  is alkyl, aryl, arylalkyl, cycloalkyl, cycloalkylalkyl, heteroaryl, heteroarylalkyl, heterocycloalkyl or heterocycloalkylalkyl;

$Ar^1$  represents a saturated, partially saturated or fully unsaturated 8- to 10-membered bicyclic ring system containing at least one heteroatom selected from O, S or N, optionally substituted by one or more aryl group substituents;

$Ar^2$  represents arylidyl or heteroarylidyl;

$L^1$  represents \_\_\_\_\_

(i) \_\_\_\_\_ an alkenylene, alkylene or alkynylene linkage each optionally substituted by (a) carboxy, hydroxy, mercapto, cyano, oxo,  $S(O)_mR^4$ ,  $R^5$ ,  $C(=O)-R^5$ ,  $C(=O)-OR^5$ ,  $N(R^6)-C(=O)-R^4$ ,  $N(R^6)-C(=O)-OR^4$ ,  $N(R^6)-SO_2-R^4$ ,  $NY^3Y^4$  or  $[C(=O)-N(R^7)-C(R^8)(R^9)]_p$ ,  $C(=O)-NY^3Y^4$ , or by (b) alkyl substituted by carboxy, hydroxy, mercapto, imidazolyl,  $S(O)_mR^4$ ,  $C(=O)-NY^3Y^4$  or  $NY^3Y^4$ ;

(ii) \_\_\_\_\_ a  $[C(=O)-N(R^7)-C(R^8)(R^9)]_p$  linkage;

(iii) \_\_\_\_\_ a  $Z^1-R^{10}$  linkage;

(iv) \_\_\_\_\_ a  $R^{10}-Z^1-R^{10}$  linkage;

(v) \_\_\_\_\_ a  $C(R^8)(R^{11})-[C(=O)-N(R^7)-C(R^8)(R^9)]_p$  linkage; or

(vi) \_\_\_\_\_ a  $L^3-L^4-L^5$  linkage;

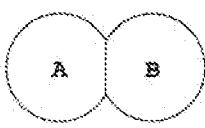
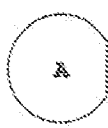
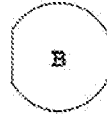
$L^2$  represents an alkylene chain;

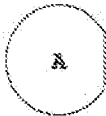
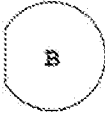
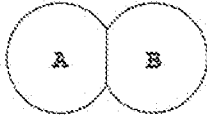
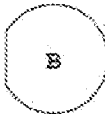
$L^3$  and  $L^5$  each independently represent a direct bond or an alkylene chain;

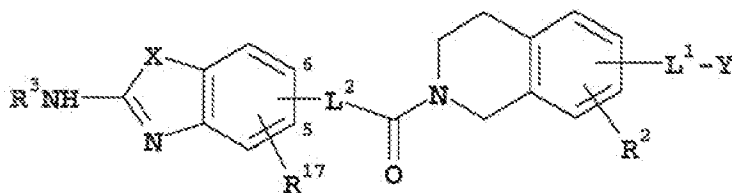
$L^4$  represents a cycloalkylene or heterocycloalkylene linkage;

$X^1$  and  $X^2$  are independently hydrogen, alkenyl, alkyl, aryl, arylalkyl, cycloalkyl, heteroaryl or heteroarylalkyl; or the group  $NY^1X^2$  may form a cyclic amine;  
 $X^3$  and  $X^4$  are independently hydrogen, alkenyl, alkyl, alkynyl, aryl, cycloalkenyl, cycloalkyl, heteroaryl, heterocycloalkyl, or alkyl substituted by alkoxy, aryl, cyano, cycloalkyl, heteroaryl, heterocycloalkyl, hydroxy, exo- $NY^1X^2$ , or one or more  $CO_2R^6$  or  $C(=O)NY^1X^2$  groups; or the group  $NY^3X^4$  may form a 5- to 7-membered cyclic amine which (i) may be optionally substituted with one or more substituents selected from the group consisting of alkoxy, carboxamido, carboxy, hydroxy, exo (or a 5-, 6- or 7-membered cyclic acetal derivative thereof) and  $R^7$ ; (ii) may also contain a further heteroatom selected from O, S,  $SO_2$  or  $NY^5$ ; and (iii) may also be fused to additional aryl, heteroaryl, heterocycloalkyl or cycloalkyl rings to form a bicyclic or tricyclic ring system;  
 $X^5$  is hydrogen, alkyl, aryl, arylalkyl,  $C(=O)R^{13}$ ,  $C(=O)OR^{13}$  or  $SO_2R^{13}$ ;  
 $Z^1$  is  $O$ ,  $S(O)_p$ ,  $NR^8$ ,  $SO_2NR^8$ ,  $C(=O)NR^8$  or  $C(=O)$ ;  
 $Y$  is carboxy or an acid bioisostere;  
 $m$  is an integer 1 or 2;  
 $n$  is zero or an integer 1 or 2; and  
 $p$  is zero or an integer 1 to 4;  
 but excluding compounds where an oxygen, nitrogen or sulfur atom is attached directly to a carbon-carbon multiple bond of an alkenylene or alkynylene residue;  
 and the corresponding N-oxides and ester prodrugs thereof, and the pharmaceutically acceptable salts and solvates of such compounds, and the N-oxides and ester prodrugs thereof.

2. (currently amended) A compound according to claim 1 in which  $R^1$  represents a group  $R^3-NH-Ar^1-L^2$  in which:  $L^2$  is a straight or branched  $C_{1-6}$ alkylene chain; and

$Ar^1$  is an 8- to 10-membered bicyclic system  in which (i) ring  is a 5- or 6-membered optionally substituted heterocycle, (ii) ring  is a 5- or 6-membered optionally substituted heterocycle or an optionally substituted benzene ring, and (iii) the two rings are joined together by a carbon-carbon linkage or a carbon-nitrogen linkage; and  
 $R^3$  is an optionally substituted aryl.

3. (Original) A compound according to claim 2 in which  is a 5-membered optionally substituted heterocycle, ring  is an optionally substituted benzene ring, and the two rings are joined together by a carbon-carbon linkage.
4. (Original) A compound according to claim 2 in which  is an optionally substituted benzoxazolyl or an optionally substituted benzimidazolyl, each in which the benzene ring contains the optional substituents.
5. (Original) A compound according to claim 2 in which ring  is a benzene ring optionally substituted by one of C<sub>1-4</sub> alkyl, C<sub>1-4</sub> alkoxy, amino, halogen, hydroxy, C<sub>1-4</sub> alkylthio, C<sub>1-4</sub> alkylsulfinyl, C<sub>1-4</sub> alkylsulfonyl, nitro or trifluoromethyl.
6. (Original) A compound according to claim 2 in which R<sup>3</sup> represents a 2-substituted phenyl.
7. (Original) A compound according to claim 6 in which R<sup>3</sup> represents 2-methylphenyl.
- 8-15. (cancelled)
16. (Original) A compound according to claim 1 of formula (Ia):-



(1a)

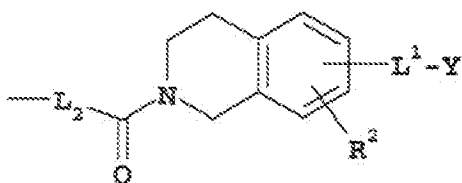
in which  $R^2$ ,  $R^3$ ,  $L^1$ ,  $L^2$  and Y are as defined in claim 1, X is O or  $NR^{18}$ , where  $R^{18}$  is hydrogen or  $C_{1-4}$ alkyl, and  $R^{17}$  is hydrogen or an aryl group substituent, and the corresponding N-oxides and ester prodrugs thereof, and the pharmaceutically acceptable salts and solvates of such compounds, and the N-oxides and ester prodrugs thereof.

17. (cancelled)

18. (Original) A compound according to claim 16 in which  $R^{17}$  represents hydrogen, halo,  $C_{1-4}$  alkyl, or  $C_{1-4}$ alkoxy.

19. (Original) A compound according to claim 16 in which  $L^2$  represents a straight or branched  $C_{1-6}$ alkylene chain.

20. (Original) A compound according to claim 16 in which the group



is attached at the ring 6 position or at the ring 5 or 6 position

when X is  $NR^{18}$  and  $R^{18}$  is  $C_{1-4}$ alkyl.

21. (Original) A compound according to claim 16 in which the group  $-L^1-Y$  is attached at position 6 or 7 of the tetrahydroisoquinoline ring.

22-28. (cancelled)

29. (currently amended) A compound according to claim 1 in which  $L^1$  represents a  $C_{1-}$

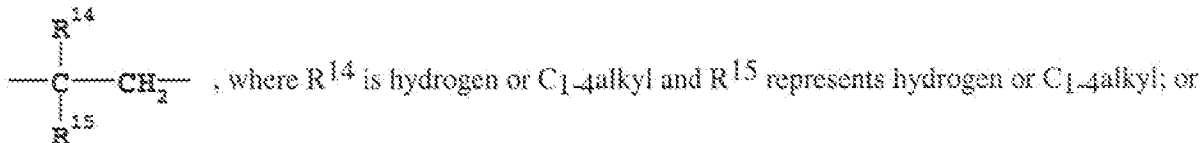
4alkylene linkage optionally substituted by  $C_{1-4}$ alkyl, aryl, or heteroaryl,  $N(R^6)-C(=O)-R^4$ ,

$N(R^6)-C(=O)-OR^4$ ,  $N(R^6)-SO_2-R^4$ ,  $NY^3Y^4$  or  $[C(=O)-N(R^7)-C(R^8)(R^9)]_p-C(=O)-NY^3Y^4$ , or

alkyl substituted by carboxy, hydroxy, mercapto, imidazolyl,  $C(=O)-NY^3Y^4$  or  $NY^3Y^4$ .

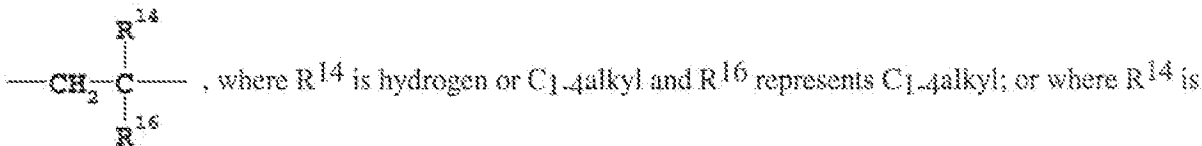
30. (Original) A compound according to claim 29 in which the C<sub>1-4</sub>alkylene linkage is an ethylene linkage.

31. (currently amended) A compound according to claim 30 in which L<sup>1</sup> represents a group



where R<sup>14</sup> is hydrogen and R<sup>15</sup> represents aryl, or heteroaryl, ~~N(R<sup>6</sup>)-C(=O)-R<sup>4</sup>, N(R<sup>6</sup>)-C(=O)-OR<sup>4</sup>, N(R<sup>6</sup>)-SO<sub>2</sub>-R<sup>4</sup>, NY<sup>3</sup>Y<sup>4</sup> or [C(=O)-N(R<sup>7</sup>)-C(R<sup>8</sup>)(R<sup>9</sup>)]<sub>p</sub>-C(=O)-NY<sup>3</sup>Y<sup>4</sup>, or alkyl substituted by~~ carboxy, hydroxy, mercapto, imidazolyl, ~~C(=O)-NY<sup>3</sup>Y<sup>4</sup> or NY<sup>3</sup>Y<sup>4</sup>.~~

32. (currently amended) A compound according to claim 30 in which L<sup>1</sup> represents a group



hydrogen and R<sup>16</sup> represents aryl, or heteroaryl, ~~N(R<sup>6</sup>)-C(=O)-R<sup>4</sup>, N(R<sup>6</sup>)-C(=O)-OR<sup>4</sup>, N(R<sup>6</sup>)-SO<sub>2</sub>-R<sup>4</sup>, NY<sup>3</sup>Y<sup>4</sup> or [C(=O)-N(R<sup>7</sup>)-C(R<sup>8</sup>)(R<sup>9</sup>)]<sub>p</sub>-C(=O)-NY<sup>3</sup>Y<sup>4</sup>, or alkyl substituted by~~ carboxy, hydroxy, mercapto, imidazolyl, ~~C(=O)-NY<sup>3</sup>Y<sup>4</sup> or NY<sup>3</sup>Y<sup>4</sup>.~~

33-34. (cancelled)

35. (currently amended) A compound according to claim 1 selected from:

3-(((4-methyl-2-*o*-tolylamino-benzoxazol-6-yl)-acetyl)-1,2,3,4-tetrahydro-isoquinolin-6-yl)-butanoic acid;

3-(((2-*o*-tolylamino-benzoxazol-6-yl)-acetyl)-1,2,3,4-tetrahydro-isoquinolin-7-yl)-butanoic acid,;

3-phenyl-3-(((2-*o*-tolylamino-benzoxazol-6-yl)-acetyl)-1,2,3,4-tetrahydro-isoquinolin-6-yl)-propanoic acid;

3-cyclohexyl-3-(((2-*o*-tolylamino-benzoxazol-6-yl)-acetyl)-1,2,3,4-tetrahydro-isoquinolin-6-yl)-propanoic acid;

3-(pyrid-4-yl)-3-(((2-*o*-tolylamino-benzoxazol-6-yl)-acetyl)-1,2,3,4-tetrahydro-isoquinolin-7-yl)-

propanoic acid;

3-(((2-*o*-tolylamino-benzoxazol-6-yl)-acetyl)-1,2,3,4-tetrahydro-isoquinolin-8-yl)-but-2-enoic acid;

3-(((2-*o*-tolylamino-benzoxazol-6-yl)-acetyl)-1,2,3,4-tetrahydro-isoquinolin-8-yl)-butanoic acid;

~~3-((2-((2-*o*-tolylamino-benzoxazol-6-yl)-carbonyl)-1,2,3,4-tetrahydro-isoquinolin-6-yl)-butanoic acid;~~

~~{5-(3-methoxy-4-{3-(2-methylphenyl)ureido}-phenylacetylamine)-1,2,3,4-tetrahydro-isoquinolin-8-yl}-~~  
~~butanoic acid;~~

~~2-(3,6-dichloro-benzoylamino)-3-((2,6-dichloro-benzoyl)-1,2,3,4-tetrahydro-isoquinolin-7-yl)-~~

~~propionic acid;~~

3-phenyl-3-(((2-*o*-tolylamino-benzoxazol-6-yl)-acetyl)-1,2,3,4-tetrahydro-isoquinolin-7-yl)-propanoic  
acid;

3-((2-*o*-tolylamino-benzoxazol-6-yl)-acetyl)-1,2,3,4-tetrahydro-isoquinolin-6-yl)-butanoic acid;

3-(pyrid-4-yl)-3-(((2-*o*-tolylamino-benzoxazol-6-yl)-acetyl)-1,2,3,4-tetrahydro-isoquinolin-7-yl)-  
propanoic acid, enantiomer A;

3-(pyrid-4-yl)-3-(((2-*o*-tolylamino-benzoxazol-6-yl)-acetyl)-1,2,3,4-tetrahydro-isoquinolin-7-yl)-  
propanoic acid, enantiomer B;

and the corresponding N-oxides and ester prodrugs thereof, and the pharmaceutically acceptable salts  
and solvates of such compounds, and the N-oxides and ester prodrugs thereof.

36. (Original) A pharmaceutical composition comprising an effective amount of a compound  
according to claim 1 or a corresponding N-oxide or ester prodrug thereof, or a pharmaceutically  
acceptable salt or solvate of such a compound, or an N-oxide or ester prodrug thereof, in association  
with a pharmaceutically acceptable carrier or excipient.

37. (Withdrawn) A method for the treatment of a human or non-human animal patient suffering  
from, or subject to, a condition which can be ameliorated by the administration of an inhibitor of  $\alpha 4\beta 1$   
mediated cell adhesion comprising administering to said patient an effective amount of a compound  
according to claim 1 or a corresponding N-oxide or ester prodrug thereof, or a pharmaceutically  
acceptable salt or solvate of such a compound, or an N-oxide or ester prodrug thereof.

38. (Withdrawn) A method for the treatment of a patient suffering from, or subject to, asthma  
comprising administering to said patient an effective amount of a compound according to claim 1 or a  
corresponding N-oxide or ester prodrug thereof, or a pharmaceutically acceptable salt or solvate of  
such a compound, or an N-oxide or ester prodrug thereof.

39. (Withdrawn) A method for the treatment of a patient suffering from, or subject to, an inflammatory disease comprising administering to said patient an effective amount of a compound according to claim 1 or a corresponding N-oxide or ester prodrug thereof, or a pharmaceutically acceptable salt or solvate of such a compound, or an N-oxide or ester prodrug thereof.
40. (Withdrawn) A method for the treatment of a human or non-human animal patient suffering from, or subject to, a condition which can be ameliorated by the administration of an inhibitor of  $\alpha 4\beta 1$  mediated cell adhesion comprising administering to said patient an effective amount of a composition according to claim 36.
41. (Withdrawn) A method for the treatment of a patient suffering from, or subject to, asthma comprising administering to said patient an effective amount of a composition according to claim 36.
42. (Withdrawn) A method for the treatment of a patient suffering from, or subject to, an inflammatory disease comprising administering to said patient an effective amount of a composition according to claim 36.